

WHAT IS CLAIMED IS:

1. A method of making a piezoelectric film comprising:
 - obtaining a piezoelectric material;
 - reducing said piezoelectric material to particles; and
 - contacting said particles with a flexible matrix material.
2. The method of claim 1, wherein:
 - said piezoelectric material comprises at least one piezoelectric material chosen from lead oxide, zirconium oxide, and titanium oxide.
3. The method of claim 2, further comprising:
 - contacting said particles with an organic binder, said binder comprising at least one organic material chosen from wax and nylon.
4. The method of claim 3, further comprising:
 - sintering said piezoelectric material to make a ceramic material.
5. The method of claim 1, wherein:
 - said reducing comprises ball milling or high energy bead milling said piezoelectric material.
6. The method of claim 1, wherein:
 - said matrix material comprises at least one flexible material chosen from an epoxy resin, thermoset material, and a thermoplastic material.
7. The method of claim 1, wherein:
 - said piezoelectric material comprises at least one piezoelectric material chosen from ammonium dihydrogen phosphate, potassium dihydrogen phosphate, barium sodium niobate, barium titanate,

barium titanate (poled), lithium niobate, lithium tantalite, lead zirconate titanate (such as PZT-2, PZT-4, PZT-4D, PZT-5H, PZT-5J, PZT-7A, PZT-8), quartz, Rochelle salt, bismuth germanate, cadmium sulfide, gallium arsenide, tellurium dioxide, zinc oxide, and zinc sulfide.

8. The method of making a piezoelectric device comprising:
 - obtaining a piezoelectric film, said film comprising a piezoelectric material and a flexible matrix material; and
 - applying electrodes to said film.
9. The method of claim 8, wherein:
 - said applying electrodes comprises applying said electrodes in a uniform pattern on said film.
10. The method of claim 8, wherein;
 - said applying electrodes comprises applying said electrodes in a interdigitated pattern on said film.
11. The method of claim 8, further comprising:
 - polarizing said film with an electromagnetic field.
12. A piezoelectric device comprising:
 - a piezoelectric film, said film comprising a piezoelectric material and a flexible matrix material; and
 - electrodes connected to said film.
13. The device in claim 12, wherein:
 - said film is polarized with an electromagnetic field.

14. A method of making a piezoelectric film comprising:
- obtaining a piezoelectric material, said piezoelectric material comprising at least one oxide chosen from lead oxide, zirconium oxide, and titanium oxide;
 - contacting said piezoelectric material with an organic binder, said binder comprising at least one organic material chosen from wax or nylon;
 - sintering said piezoelectric material to make a ceramic material;
 - milling said ceramic material into particles;
 - contacting said particles with a flexible matrix material;
 - molding said matrix material onto a surface; and
 - curing said matrix material.
15. The method of claim 14, further comprising:
- applying electrodes to said matrix material.
16. The method of claim 15, further comprising:
- polarizing said matrix material with an electromagnetic field.
17. A circuit comprising:
- a piezoelectric device, said piezoelectric device comprising a piezoelectric film and at least two electrodes, said piezoelectric film comprising a piezoelectric material and a flexible matrix material;
 - a member, wherein said electrodes contact said member;
 - whereby vibrations in said member can be dampened by tuning said circuit.

18. The circuit in claim 17, wherein:

said member comprises a resistance and a natural frequency,
whereby said vibrations are dampened by tuning said circuit to said
natural frequency of said member.

19. The circuit in claim 18, wherein:

said resistance can be adjusted by positioning carbon fibers within said
member.

20. The circuit in claim 17, wherein:

said piezoelectric device is adapted to generate an electric potential,
whereby said vibrations are dampened by adjusting said electrical
potential to tune said circuit to a frequency of said vibrations.

21. The circuit of claim 20, wherein:

said member is a frame of a racquet.

22. The circuit of claim 20 wherein:

said member is a handle of a racquet.

23. The circuit of claim 17, wherein:

said member is at least a portion of a ski apparatus.

24. A circuit comprising:

a piezoelectric device, said piezoelectric device comprising a piezoelectric
film and at least two electrodes, said piezoelectric film comprising a
piezoelectric material and a flexible matrix material;
a member, wherein said electrodes contact said member;
whereby vibrations in said member can be dissipated as heat.

25. The circuit in claim 24, further comprising:
- a metal wire, said metal wire connected to said piezoelectric device, said wire adapted to generate heat,
- wherein said piezoelectric device is adapted to generate an electric potential to dissipate said vibrations through said wire.
26. The circuit of claim 25 wherein:
- said member is a ski apparatus.
27. The circuit of claim 26, wherein:
- said wire runs through an edge or a core of the ski apparatus.